

10/728869

Refine Search

Your wildcard search against 10000 terms has yielded the results below.

Your result set for the last L# is incomplete.

The probable cause is use of unlimited truncation. Revise your search strategy to use limited truncation.

Search Results -

| Terms | Documents |
|---|-----------|
| L10 and (inertial\$ with (frame or referenc\$)) | 1 |

Database:

US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:

L11

Refine Search

Recall Text

Clear

Interrupt

Search History

DATE: Monday, December 11, 2006 [Purge Queries](#) [Printable Copy](#) [Create Case](#)

| Set Name | Query | Hit Count | Set Name |
|--------------|---|--------------|-------------|
| side by side | | | result set |
| | DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR | | |
| L11 | L10 and (inertial\$ with (frame or referenc\$)) | 1 | L11 |
| L10 | L9 and L2 | 1 | L10 |
| L9 | L6 or L7 or L8 | 22 | L9 |
| | DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR | | |
| L8 | (4088906 4155007 3920994 3825754 3359407 3193681 4114841 3714432 3379885 4263555 4119918 4056738 3457410 3940753 3737790 3793518 3020407 3834653)! [PN] | 18 | L8 |
| | DB=PGPB,USPT; THES=ASSIGNEE; PLUR=YES; OP=OR | | |
| L7 | ("20050192719" "4426591") [PN] | 2 | L7 |
| | DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; | | |

OP=OR

L6 L3 or L4

4 L6

L5 L3 and L4

0 L5

DB=PGPB,USPT; THES=ASSIGNEE; PLUR=YES; OP=OR

L4 ("20050192719"|"4426591")[URPN]

2 L4

DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES;
OP=OR

L3 (puls\$ with celestial\$ with radiat\$).clm.

2 L3

L2 (puls\$ with celestial\$ with radiat\$) and navigation.clm.

1 L2

DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR

L1 6230098.pn. or 6336073.pn.

2 L1

END OF SEARCH HISTORY

1/3,KWIC/1

DIALOG(R)File 14:Mechanical and Transport Engineer Abstract
(c) 2006 CSA. All rts. reserv.

0000130609 IP ACCESSION NO: 200212-12-010480

The celestial view from a relativistic starship

STIMETS, R W; SHELDON, E

Lowell, University, Lowell, Mass. [STIMETS, SHELDON]

British Interplanetary Society, Journal (Interstellar Studies), v 34, p

83-99, Mar. 1981

PUBLICATION DATE: 1981

CONFERENCE:

, United Kingdom

DOCUMENT TYPE: Journal Article

RECORD TYPE: Abstract

LANGUAGE: English

FILE SEGMENT: Mechanical & Transportation Engineering Abstracts

, Mar. 1981

ABSTRACT:

... considerations for manned interstellar flight are discussed and evaluated, with particular attention to durational and navigational aspects. The visual appearance of the forward cone, of semiangle 60 deg, in the astronauts...

DESCRIPTORS: Radiation; Doppler effect; Brightness; Singularities; Contraction; Wavelengths; Aberration; Mathematical analysis; Space vehicles; Background radiation ; Displacement; Microwaves; * Celestial mechanics; *Interstellar spacecraft; *Interstellar travel; *Manned space flight; *Relativistic effects; Black body radiation; Hertzsprung-russell

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SF ENG

>>>SELECT FILES not supported.

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B411

09dec06 10:49:58 User264717 Session D541.3

\$2.68 0.433 DialUnits File14

\$2.50 1 Type(s) in Format 3

\$2.50 1 Types

\$5.18 Estimated cost File14

\$0.53 INTERNET

\$5.71 Estimated cost this search

\$61.56 Estimated total session cost 20.220 DialUnits

File 411:DIALINDEX(R)

DIALINDEX(R)

(c) 2006 Dialog

*** DIALINDEX search results display in an abbreviated ***

*** format unless you enter the SET DETAIL ON command. ***

?

SF ENG

>>> 32 is unauthorized

>>> 108 is unauthorized

>>>2 of the specified files are not available

You have 38 files in your file list.

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?

S NAVIGAT? AND (RADIAT? (6W) CELESTIAL?)

Your SELECT statement is:

S NAVIGAT? AND (RADIAT? (6W) CELESTIAL?)

Items File

1 2: INSPEC_1898-2006/Nov W4

4 6: NTIS_1964-2006/Nov W4

2 8: Ei Compendex(R)_1970-2006/Nov W4

2 14: Mechanical and Transport Engineer

Abstract_1966-2006/Nov

1 35: Dissertation Abs Online_1861-2006/Nov

1 57: Electronics & Communications

Abstracts_1966-2006/Nov

1 68: Solid State & Superconductivity

Abstracts_1966-2006/Nov

1 144: Pascal_1973-2006/Nov W2

8 files have one or more items; file list includes 38 files.

?

B 2,6,8,14,35,57,68,144

09dec06 10:51:07 User264717 Session D541.4

\$2.55 0.963 DialUnits File411

\$2.55 Estimated cost File411

\$0.53 INTERNET

\$3.08 Estimated cost this search

\$64.64 Estimated total session cost 21.184 DialUnits

SYSTEM:OS - DIALOG OneSearch

File 2:INSPEC 1898-2006/Nov W4

(c) 2006 Institution of Electrical Engineers

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(c) 2006 NTIS, Intl Cpyrght All Rights Res

File 8:Ei Compendex(R) 1970-2006/Nov W4

(c) 2006 Elsevier Eng. Info. Inc.

***File 8: The file has been reprocessed and accession numbers have changed. See HELP NEWS988 for details.**

File 14:Mechanical and Transport Engineer Abstract 1966-2006/Nov

(c) 2006 CSA.

File 35:Dissertation Abs Online 1861-2006/Nov

(c) 2006 ProQuest Info&Learning

File 57:Electronics & Communications Abstracts 1966-2006/Nov

(c) 2006 CSA.

File 68:Solid State & Superconductivity Abstracts 1966-2006/Nov

(c) 2006 CSA.

File 144:Pascal 1973-2006/Nov W2

(c) 2006 INIST/CNRS

Set Items Description

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?

S NAVIGAT? AND (RADIAT? (6W) CELESTIAL?)

149335 NAVIGAT?

1610738 RADIAT?

27658 CELESTIAL?

170 RADIAT?(6W)CELESTIAL?

S1 13 NAVIGAT? AND (RADIAT? (6W) CELESTIAL?)

?

RD

S2 9 RD (unique items)

?

T S2/3,KWIC/9

2/3,KWIC/9 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

(c) 2006 INIST/CNRS. All rts. reserv.

17204032 PASCAL No.: 05-0275169

Attitude control system of the Wilkinson Microwave Anisotropy Probe

✶ MARKLEY F Landis; ANDREWS Stephen F; O'DONNELL James R JR; WARD David K
NASA Goddard Space Flight Center, Greenbelt, Maryland 20771, United
States

Journal: Journal of guidance, control, and dynamics, 2005, 28 (3)
385-397

Language: English

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The Wilkinson Microwave Anisotropy Probe mission produces a map of the
cosmic microwave background radiation over the entire celestial sphere
by executing a fast spin and a slow precession of its spin axis about...

English Descriptors: Attitude control; Control synthesis; Solid dynamic;
Cosmic ray; Spacecraft; Inertial navigation ; Measurement sensor; Wheel;
Assembly; Orbit; Angular momentum; Anomaly; Reaction force

French Descriptors: Commande attitude; Synthese commande; Dynamique solide;
Rayonnement cosmique; Spationef; Navigation inertie; Capteur mesure;
Roue; Montage; Orbite; Moment cinetique; Anomalie; Force reaction

?

T S2/3,KWIC/1-9

2/3,KWIC/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2006 Institution of Electrical Engineers. All rts. reserv.

01851172 INSPEC Abstract Number: A76007082

Title: Navigation and guidance in interstellar space

Author(s): Hoag, D.G.; Wrigley, W.

Author Affiliation: Charles Stark Draper Lab. Inc., Cambridge, MA, USA

Journal: Acta Astronautica vol.2, no.5-6 p.513-33

Publication Date: May-June 1975 Country of Publication: UK

CODEN: AASTCF ISSN: 0094-5765

Language: English
Subfile: A

Title: Navigation and guidance in interstellar space

...Abstract: by abundant propulsion, velocity approaching the speed of light, and very long mission times. The navigation and guidance of such a starship will involve an autonomous system sensing received radiation from celestial bodies and utilizing inertial measurements of the motions of the starship. The sensing phenomena which...

... that the present state of the art in theory and implementation of the space-vehicle navigation and guidance is far closer to supporting an interstellar mission than that of many of...

Descriptors: navigation ;

...Identifiers: autonomous system sensing received radiation from celestial bodies...

... navigation ;

2/3,KWIC/2 (Item 1 from file: 6) ✓
DIALOG(R)File 6:NTIS
(c) 2006 NTIS, Intl Cpyrgh All Rights Res. All rts. reserv.

0523586 NTIS Accession Number: AD-A016 397/2/XAB

AFCRL Infrared Sky Survey. Volume I. Catalog of Observations at 4, 11, and 20 Microns

(Environmental research papers)

Walker, R. G. ; Price, S. D.

Air Force Cambridge Research Labs Hanscom AFB Mass

Corp. Source Codes: 011800

Report No.: AFCRL-TR-75-0373; AFCRL-ERP-522

14 Jul 75 156p

Journal Announcement: GRAI7526

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NTIS Prices: PC A08/MF A01

Descriptors: *Intermediate infrared radiation ; Infrared scanning; Celestial navigation ; Stellar map matching; Emission spectra; Brightness; Spatial distribution; Coordinates; Position(Location); Stars; Sky; Surveys; Tables...

✓ 2/3,KWIC/3 (Item 2 from file: 6)

DIALOG(R)File 6:NTIS

(c) 2006 NTIS, Intl Cpyrght All Rights Res. All rts. reserv.

0403630 NTIS Accession Number: N73-28490/3/XAB

Device for Determining Relative Angular Position Between a Spacecraft and a Radiation Emitting Celestial Body

(Patent)

Farthing, W. H. ; Frisbie, H. F.

National Aeronautics and Space Administration. Goddard Space Flight Center, Greenbelt, Md.

Report No.: NASA-CASE-GSC-11444-1; PATENT-3 744 913

Filed patented 10 Jul 73 9p

Document Type: Patent

Journal Announcement: GRAI7322; STAR1119

Misc-Filed 24 Feb. 1972 Supersedes N72-21418 (10 - 12, p 1608).

Government-owned invention available for licensing. Copy of patent available from Commissioner of Patents, Washington, D.C. 20231 \$.50.

NTIS Prices: Not available NTIS

Device for Determining Relative Angular Position Between a Spacecraft and a Radiation Emitting Celestial Body

... the relative angular position between a spin stabilized spacecraft, probe, or sounding rocket and a radiation emitting celestial body are derived with a detector including four electrodes for deriving indications of the centroid...

2/3,KWIC/4 (Item 3 from file: 6)

DIALOG(R)File 6:NTIS

(c) 2006 NTIS, Intl Cpyrght All Rights Res. All rts. reserv.

0380833 NTIS Accession Number: N73-19866/XAB

Ultraviolet Brightness of Celestial Targets for APOLLO 17

Fastie, W. G.

Johns Hopkins Univ., Baltimore, Md. Dept. of Physics.

Report No.: NASA-CR-128834

Dec 72 70p

Journal Announcement: GRAI7312; STAR1110

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC E03/MF A01

Descriptors: *Apollo 17 flight; *Space navigation; *Stellar radiation

; *Ultraviolet radiation ; Celestial navigation ; Celestial reference systems; Spacecraft guidance

2/3,KWIC/5 (Item 1 from file: 8)
DIALOG(R)File 8: Ei Compendex(R)
(c) 2006 Elsevier Eng. Info. Inc. All rts. reserv.

0001546732 E.I. No: 19630034466

Title: Optical trackers in space
Author: Harmon, W.L.; Shroyer, G.J.; Gilkey, K.J.
Source: Instrument Society of America -- Journal v 9 n 11 Nov 1962 (Instrument Society of America (ISA) Pittsburgh, PA United States), p 70-73
Publication Year: 1962
Language: English

Abstract: Discussion of optical trackers as accurate passive systems for spacecraft navigation systems; optical trackers can use natural radiation from various celestial bodies to give attitude and position data to space navigators .

2/3,KWIC/6 (Item 1 from file: 14)
DIALOG(R)File 14: Mechanical and Transport Engineer Abstract
(c) 2006 CSA. All rts. reserv.

0000130609 IP ACCESSION NO: 200212-12-010480

The celestial view from a relativistic starship

STIMETS, R W; SHELDON, E
Lowell, University, Lowell, Mass. [STIMETS, SHELDON]

British Interplanetary Society, Journal (Interstellar Studies), v 34, p 83-99, Mar. 1981
PUBLICATION DATE: 1981

CONFERENCE:
, United Kingdom

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
FILE SEGMENT: Mechanical & Transportation Engineering Abstracts

ABSTRACT:
... considerations for manned interstellar flight are discussed and

evaluated, with particular attention to durational and navigational aspects. The visual appearance of the forward cone, of semiangle 60 deg, in the astronauts...


DESCRIPTORS: Radiation; Doppler effect; Brightness; Singularities; Contraction; Wavelengths; Aberration; Mathematical analysis; Space vehicles; Background radiation ; Displacement; Microwaves; * Celestial mechanics; *Interstellar spacecraft; *Interstellar travel; *Manned space flight; *Relativistic effects; Black body radiation; Hertzsprung-russell

2/3,KWIC/7 (Item 1 from file: 35)

DIALOG(R)File 35:Dissertation Abs Online

(c) 2006 ProQuest Info&Learning. All rts. reserv.

02103188 ORDER NO: AADAA-I3183563

 **The use of variable celestial X-ray sources for spacecraft navigation**

Author: Sheikh, Suneel Ismail

Degree: Ph.D.

Year: 2005

Corporate Source/Institution: University of Maryland, College Park (0117)

Source: VOLUME 66/07-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
PAGE 3817. 630 PAGES

ISBN: 0-542-24965-0

The use of variable celestial X-ray sources for spacecraft navigation

Accurate control and guidance of spacecraft require continuous high performance three-dimensional navigation solutions. Celestial sources that produce fixed radiation have demonstrated benefits for determining location near Earth and vehicle attitude. Many interplanetary navigation solutions have also relied on Earth-based radio telescope observations and substantial ground processing.

This dissertation investigates the use of variable celestial sources to compute an accurate navigation solution for autonomous spacecraft operation and presents new methodologies for determining time, attitude, position, and...

...ray emitting variable sources has been compiled to identify those that exhibit characteristics conducive to navigation. Many of these sources emit periodic signals that are stable and predictable, and all are...

...from Earth-orbiting X-ray astrophysics missions are also presented.

Results indicate that the pulsed radiation from variable celestial

X-ray sources presents a significant opportunity for developing a new class of navigation system for autonomous spacecraft operation.

2/3, KWIC/8 (Item 1 from file: 57)

DIALOG(R)File 57: Electronics & Communications Abstracts
(c) 2006 CSA. All rts. reserv.

0000271820 IP ACCESSION NO: 200312-32-1352

UMBRAS - A matched occulter and telescope for imaging extrasolar planets

Schultz, Alfred B; Jordan, Ian J; Kochte, Mark; Fraquelli, Dorothy A;
Bruhweiler, Fred; Hollis, Jan M; Carpenter, Kenneth G; Lyon, Richard G;
DiSanti, Mike A; Miskey, Cherie L
Computer Sciences Corp.

SPIE Proceedings Series, v SPIE-4860, p 54-61

PUBLICATION DATE: 2003

PUBLISHER: Society of Photo-Optical Instrumentation Engineers, 1000 20th
Street, P.O. Box 10, Bellingham, WA, 98225

COUNTRY OF PUBLICATION: USA

PUBLISHER URL: <http://www.spie.org>

PUBLISHER EMAIL: spie@spie.org

CONFERENCE:

High-Contrast Imaging for Exo-Planet Detection, Waikoloa, HI, 23-26 Aug.
2002

DOCUMENT TYPE: Conference Paper; Journal Article

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ISSN: 1017-2653

REPORT NO: SPIE-4860

FILE SEGMENT: Electronics & Communications Abstracts

ABSTRACT:

... would be semi-autonomous, with its own propulsion systems, internal power (solar cells), communications, and navigation capability. Spacecraft rendezvous and formation flying would be achieved with the aid of telescope imaging, RF or laser ranging, celestial navigation inputs, and formation control algorithms. (Author)

DESCRIPTORS: Telescopes; Space; Umbras; Planets; Detection; Spacecraft;
Stars; Light (visible radiation); Space missions; Extrasolar planets;
Systems; Celestial navigation; Images; Polishing; Stellar systems;
Navigation; Solar system; Sky; Communication; Power transmission

2/3,KWIC/9 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

(c) 2006 INIST/CNRS. All rts. reserv.

17204032 PASCAL No.: 05-0275169

Attitude control system of the Wilkinson Microwave Anisotropy Probe

MARKLEY F Landis; ANDREWS Stephen F; O'DONNELL James R JR; WARD David K
NASA Goddard Space Flight Center, Greenbelt, Maryland 20771, United
States

Journal: Journal of guidance, control, and dynamics, 2005, 28 (3)
385-397

Language: English

Copyright (c) 2005 INIST-CNRS. All rights reserved.

The Wilkinson Microwave Anisotropy Probe mission produces a map of the
cosmic microwave background radiation over the entire celestial sphere
by executing a fast spin and a slow precession of its spin axis about...

English Descriptors: Attitude control; Control synthesis; Solid dynamic;
Cosmic ray; Spacecraft; Inertial navigation ; Measurement sensor; Wheel;
Assembly; Orbit; Angular momentum; Anomaly; Reaction force

French Descriptors: Commande attitude; Synthese commande; Dynamique solide;
Rayonnement cosmique; Spationef; Navigation inertie; Capteur mesure;
Roue; Montage; Orbite; Moment cinetique; Anomalie; Force reaction

?

S NAVIGAT? AND (RADIAT? (6N) CELESTIAL?)

149335 NAVIGAT?

1610738 RADIAT?

27658 CELESTIAL?

369 RADIAT?(6N)CELESTIAL?

S3 14 NAVIGAT? AND (RADIAT? (6N) CELESTIAL?)

?

RD

S4 10 RD (unique items)

?

T S4/3,KWIC/1-10

4/3,KWIC/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2006 Institution of Electrical Engineers. All rts. reserv.

01851172 INSPEC Abstract Number: A76007082

Title: Navigation and guidance in interstellar space

Author(s): Hoag, D.G.; Wrigley, W.

Author Affiliation: Charles Stark Draper Lab. Inc., Cambridge, MA, USA

Journal: Acta Astronautica vol.2, no.5-6 p.513-33

Publication Date: May-June 1975 Country of Publication: UK

CODEN: AASTCF ISSN: 0094-5765

Language: English

Subfile: A

Title: Navigation and guidance in interstellar space

...Abstract: by abundant propulsion, velocity approaching the speed of light, and very long mission times. The navigation and guidance of such a starship will involve an autonomous system sensing received radiation from celestial bodies and utilizing inertial measurements of the motions of the starship. The sensing phenomena which...

... that the present state of the art in theory and implementation of the space-vehicle navigation and guidance is far closer to supporting an interstellar mission than that of many of...

Descriptors: navigation ;

...Identifiers: autonomous system sensing received radiation from celestial bodies...

... navigation ;

4/3,KWIC/2 (Item 1 from file: 6)

DIALOG(R)File 6:NTIS

(c) 2006 NTIS, Intl Cpyrht All Rights Res. All rts. reserv.

0523586 NTIS Accession Number: AD-A016 397/2/XAB

AFCRL Infrared Sky Survey. Volume I. Catalog of Observations at 4, 11, and 20 Microns

(Environmental research papers)

Walker, R. G. ; Price, S. D.

Air Force Cambridge Research Labs Hanscom AFB Mass

Corp. Source Codes: 011800

Report No.: AFCRL-TR-75-0373; AFCRL-ERP-522

14 Jul 75 156p

Journal Announcement: GRAI7526

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Springfield, VA, 22161, USA.
NTIS Prices: PC A08/MF A01

Descriptors: *Intermediate infrared radiation ; Infrared scanning;
Celestial navigation ; Stellar map matching; Emission spectra;
Brightness; Spatial distribution; Coordinates; Position(Location); Stars;
Sky; Surveys; Tables...

4/3,KWIC/3 (Item 2 from file: 6)

DIALOG(R)File 6:NTIS

(c) 2006 NTIS, Intl Cpyrght All Rights Res. All rts. reserv.

0403630 NTIS Accession Number: N73-28490/3/XAB

**Device for Determining Relative Angular Position Between a Spacecraft and
a Radiation Emitting Celestial Body**

(Patent)

Farthing, W. H. ; Frisbie, H. F.

National Aeronautics and Space Administration. Goddard Space Flight
Center, Greenbelt, Md.

Report No.: NASA-CASE-GSC-11444-1; PATENT-3 744 913

Filed patented 10 Jul 73 9p

Document Type: Patent

Journal Announcement: GRAI7322; STAR1119

Misc-Filed 24 Feb. 1972 Supersedes N72-21418 (10 - 12, p 1608).

Government-owned invention available for licensing. Copy of patent
available from Commissioner of Patents, Washington, D.C. 20231 \$.50.

NTIS Prices: Not available NTIS

**Device for Determining Relative Angular Position Between a Spacecraft and
a Radiation Emitting Celestial Body**

... the relative angular position between a spin stabilized spacecraft,
probe, or sounding rocket and a radiation emitting celestial body are
derived with a detector including four electrodes for deriving indications
of the centroid...

Descriptors: *Angular correlation; * Celestial bodies; *Spacecraft
position indicators; Patents; Radiation detectors; Semiconductor devices;
Signal processing; Space orientation; Spin stabilization

4/3,KWIC/4 (Item 3 from file: 6)

DIALOG(R)File 6:NTIS

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0380833 NTIS Accession Number: N73-19866/XAB

Ultraviolet Brightness of Celestial Targets for APOLLO 17

Fastie, W. G.

Johns Hopkins Univ., Baltimore, Md. Dept. of Physics.

Report No.: NASA-CR-128834

Dec 72 70p

Journal Announcement: GRAI7312; STAR1110

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC E03/MF A01

Descriptors: *Apollo 17 flight; *Space navigation; *Stellar radiation; *Ultraviolet radiation; Celestial navigation; Celestial reference systems; Spacecraft guidance

4/3,KWIC/5 (Item 4 from file: 6)

DIALOG(R)File 6:NTIS

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0172943 NTIS Accession Number: AD-683 143/XAB

Applications of Infrared Techniques in Modern Aviation

Shen Kung-hsun

Foreign Technology Div Wright-Patterson AFB Ohio

Corp. Source Codes: 141600

Report No.: FTD-HT-23-473-68

11 Sep 68 12p

Document Type: Translation

Journal Announcement: USGRDR6909

Edited trans. of Hang K'ung Chih Shih (Mainland China), n7 p10-12 1960.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A02/MF A01

...Descriptors: Homing devices; Infrared equipment; Identification systems; Infrared detectors; Infrared image tubes; Infrared tracking; Heat homing; Celestial guidance; Infrared radiation; Infrared telescopes; China

4/3,KWIC/6 (Item 1 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

(c) 2006 Elsevier Eng. Info. Inc. All rts. reserv.

0001546732 E.I. No: 19630034466

Title: Optical trackers in space

Author: Harmon, W.L.; Shroyer, G.J.; Gilkey, K.J.

Source: Instrument Society of America -- Journal v 9 n 11 Nov 1962 (Instrument Society of America (ISA) Pittsburgh, PA United States), p 70-73

Publication Year: 1962

Language: English

Abstract: Discussion of optical trackers as accurate passive systems for spacecraft navigation systems; optical trackers can use natural radiation from various celestial bodies to give attitude and position data to space navigators.

4/3,KWIC/7 (Item 1 from file: 14)

DIALOG(R)File 14:Mechanical and Transport Engineer Abstract

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0000130609 IP ACCESSION NO: 200212-12-010480

The celestial view from a relativistic starship

STIMETS, R W; SHELDON, E

Lowell, University, Lowell, Mass. [STIMETS, SHELDON]

British Interplanetary Society, Journal (Interstellar Studies), v 34, p 83-99, Mar. 1981

PUBLICATION DATE: 1981

CONFERENCE:

, United Kingdom

DOCUMENT TYPE: Journal Article

RECORD TYPE: Abstract

LANGUAGE: English

FILE SEGMENT: Mechanical & Transportation Engineering Abstracts

ABSTRACT:

... considerations for manned interstellar flight are discussed and evaluated, with particular attention to durational and navigational aspects. The visual appearance of the forward cone, of semiangle 60 deg, in the astronauts...

DESCRIPTORS: Radiation; Doppler effect; Brightness; Singularities; Contraction; Wavelengths; Aberration; Mathematical analysis; Space vehicles; Background radiation ; Displacement; Microwaves; * Celestial mechanics; *Interstellar spacecraft; *Interstellar travel; *Manned space

flight; *Relativistic effects; Black body radiation; Hertzsprung-russell

...

4/3,KWIC/8 (Item 1 from file: 35)

DIALOG(R)File 35:Dissertation Abs Online

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02103188 ORDER NO: AADAA-I3183563

The use of variable celestial X-ray sources for spacecraft navigation

Author: Sheikh, Suneel Ismail

Degree: Ph.D.

Year: 2005

Corporate Source/Institution: University of Maryland, College Park (0117

)

Source: VOLUME 66/07-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 3817. 630 PAGES

ISBN: 0-542-24965-0

The use of variable celestial X-ray sources for spacecraft navigation

Accurate control and guidance of spacecraft require continuous high performance three-dimensional navigation solutions. Celestial sources that produce fixed radiation have demonstrated benefits for determining location near Earth and vehicle attitude. Many interplanetary navigation solutions have also relied on Earth-based radio telescope observations and substantial ground processing.

This dissertation investigates the use of variable celestial sources to compute an accurate navigation solution for autonomous spacecraft operation and presents new methodologies for determining time, attitude, position, and...

...ray emitting variable sources has been compiled to identify those that exhibit characteristics conducive to navigation. Many of these sources emit periodic signals that are stable and predictable, and all are...

...from Earth-orbiting X-ray astrophysics missions are also presented.

Results indicate that the pulsed radiation from variable celestial X-ray sources presents a significant opportunity for developing a new class of navigation system for autonomous spacecraft operation.

4/3,KWIC/9 (Item 1 from file: 57)

DIALOG(R)File 57:Electronics & Communications Abstracts

(c) 2006 CSA. All rts. reserv.

0000271820 IP ACCESSION NO: 200312-32-1352

UMBRAS - A matched occulter and telescope for imaging extrasolar planets

Schultz, Alfred B; Jordan, Ian J; Kochte, Mark; Fraquelli, Dorothy A;
Bruhweiler, Fred; Hollis, Jan M; Carpenter, Kenneth G; Lyon, Richard G;
DiSanti, Mike A; Miskey, Cherie L
Computer Sciences Corp.

SPIE Proceedings Series, v SPIE-4860, p 54-61

PUBLICATION DATE: 2003

PUBLISHER: Society of Photo-Optical Instrumentation Engineers, 1000 20th
Street, P.O. Box 10, Bellingham, WA, 98225

COUNTRY OF PUBLICATION: USA

PUBLISHER URL: <http://www.spie.org>

PUBLISHER EMAIL: spie@spie.org

CONFERENCE:

High-Contrast Imaging for Exo-Planet Detection, Waikoloa, HI, 23-26 Aug.
2002

DOCUMENT TYPE: Conference Paper; Journal Article

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ISSN: 1017-2653

REPORT NO: SPIE-4860

FILE SEGMENT: Electronics & Communications Abstracts

ABSTRACT:

... would be semi-autonomous, with its own propulsion systems, internal
power (solar cells), communications, and navigation capability.
Spacecraft rendezvous and formation flying would be achieved with the aid
of telescope imaging, RF or laser ranging, celestial navigation inputs,
and formation control algorithms. (Author)

DESCRIPTORS: Telescopes; Space; Umbras; Planets; Detection; Spacecraft;
Stars; Light (visible radiation); Space missions; Extrasolar planets;
Systems; Celestial navigation; Images; Polishing; Stellar systems;
Navigation; Solar system; Sky; Communication; Power transmission

4/3,KWIC/10 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

(c) 2006 INIST/CNRS. All rts. reserv.

17204032 PASCAL No.: 05-0275169

Attitude control system of the Wilkinson Microwave Anisotropy Probe

MARKLEY F Landis; ANDREWS Stephen F; O'DONNELL James R JR; WARD David K
NASA Goddard Space Flight Center, Greenbelt, Maryland 20771, United
States

Journal: Journal of guidance, control, and dynamics, 2005, 28 (3)
385-397

Language: English

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The Wilkinson Microwave Anisotropy Probe mission produces a map of the
cosmic microwave background radiation over the entire celestial sphere
by executing a fast spin and a slow precession of its spin axis about...

English Descriptors: Attitude control; Control synthesis; Solid dynamic;
Cosmic ray; Spacecraft; Inertial navigation ; Measurement sensor; Wheel;
Assembly; Orbit; Angular momentum; Anomaly; Reaction force

French Descriptors: Commande attitude; Synthese commande; Dynamique solide;
Rayonnement cosmique; Spationef; Navigation inertie; Capteur mesure;
Roue; Montage; Orbite; Moment cinetique; Anomalie; Force reaction

?

B AUTO

09dec06 11:00:38 User264717 Session D541.5

\$3.46 0.389 DialUnits File2

\$6.28 2 Type(s) in Format 3

\$6.28 2 Types

\$9.74 Estimated cost File2

\$1.72 0.236 DialUnits File6

\$16.45 7 Type(s) in Format 3

\$16.45 7 Types

\$18.17 Estimated cost File6

\$2.29 0.244 DialUnits File8

\$0.46 2 Type(s) in Format 96 (KWIC)

\$0.46 2 Types

\$2.75 Estimated cost File8

\$0.63 0.102 DialUnits File14

\$5.00 2 Type(s) in Format 3

\$5.00 2 Types

\$5.63 Estimated cost File14

\$0.39 0.094 DialUnits File35

\$0.20 2 Type(s) in Format 95 (KWIC)

\$0.20 2 Types

\$0.59 Estimated cost File35

\$0.85 0.110 DialUnits File57

\$4.50 2 Type(s) in Format 3

\$4.50 2 Types
 \$5.35 Estimated cost File57
 \$0.49 0.063 DialUnits File68
 \$0.49 Estimated cost File68
 \$1.22 0.271 DialUnits File144
 \$4.95 3 Type(s) in Format 3
 \$4.95 3 Types
 \$6.17 Estimated cost File144
 OneSearch, 8 files, 1.508 DialUnits FileOS
 \$2.66 INTERNET
 \$51.55 Estimated cost this search
 \$116.19 Estimated total session cost 22.692 DialUnits

SYSTEM:OS - DIALOG OneSearch

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***File 8: The file has been reprocessed and accession numbers have changed. See HELP NEWS988 for details.**

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 File 36:MetalBase 1965-20061207
 (c) 2006 The Thomson Corporation
 File 63:Transport Res(TRIS) 1970-2006/Oct
 (c) fmt only 2006 Dialog
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 File 81:MIRA - Motor Industry Research 2001-2006/Sep
 (c) 2006 MIRA Ltd.
 File 94:JICST-EPlus 1985-2006/Aug W3
 (c)2006 Japan Science and Tech Corp(JST)
 File 95:TEME-Technology & Management 1989-2006/Dec W1
 (c) 2006 FIZ TECHNIK
 File 266:FEDRIP 2006/Aug
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Set Items Description

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S NAVIGAT? AND (RADIAT? (6N) CELESTIAL?)

114592 NAVIGAT?
 897194 RADIAT?
 17850 CELESTIAL?
 132 RADIAT?(6N)CELESTIAL?

S1 7 NAVIGAT? AND (RADIAT? (6N) CELESTIAL?)
?

RD

S2 6 RD (unique items)
?

T S2/3,KWIC/1-6

2/3,KWIC/1 (Item 1 from file: 6)
DIALOG(R)File 6:NTIS
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0523586 NTIS Accession Number: AD-A016 397/2/XAB
AFCRL Infrared Sky Survey. Volume I. Catalog of Observations at 4, 11, and 20 Microns
(Environmental research papers)
Walker, R. G. ; Price, S. D.
Air Force Cambridge Research Labs Hanscom AFB Mass
Corp. Source Codes: 011800
Report No.: AFCRL-TR-75-0373; AFCRL-ERP-522
14 Jul 75 156p
Journal Announcement: GRAI7526
Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.
NTIS Prices: PC A08/MF A01

Descriptors: *Intermediate infrared radiation ; Infrared scanning;
Celestial navigation ; Stellar map matching; Emission spectra;
Brightness; Spatial distribution; Coordinates; Position(Location); Stars;
Sky; Surveys; Tables...

RFA
2/3,KWIC/2 (Item 2 from file: 6)
DIALOG(R)File 6:NTIS
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0403630 NTIS Accession Number: N73-28490/3/XAB
Device for Determining Relative Angular Position Between a Spacecraft and a Radiation Emitting Celestial Body
(Patent)
Farthing, W. H. ; Frisbie, H. F.
National Aeronautics and Space Administration. Goddard Space Flight Center, Greenbelt, Md.

Report No.: NASA-CASE-GSC-11444-1; PATENT-3 744 913
Filed patented 10 Jul 73 9p
Document Type: Patent
Journal Announcement: GRAI7322; STAR1119
Misc-Filed 24 Feb. 1972 Supersedes N72-21418 (10 - 12, p 1608).
Government-owned invention available for licensing. Copy of patent
available from Commissioner of Patents, Washington, D.C. 20231 \$.50.
NTIS Prices: Not available NTIS

**Device for Determining Relative Angular Position Between a Spacecraft and
a Radiation Emitting Celestial Body**

... the relative angular position between a spin stabilized spacecraft,
probe, or sounding rocket and a radiation emitting celestial body are
derived with a detector including four electrodes for deriving indications
of the centroid...

Descriptors: *Angular correlation; * Celestial bodies; *Spacecraft
position indicators; Patents; Radiation detectors; Semiconductor devices;
Signal processing; Space orientation; Spin stabilization

2/3,KWIC/3 (Item 3 from file: 6)
DIALOG(R)File 6:NTIS
(c) 2006 NTIS, Intl Cpyrght All Rights Res. All rts. reserv.

0380833 NTIS Accession Number: N73-19866/XAB
Ultraviolet Brightness of Celestial Targets for APOLLO 17
Fastie, W. G.
Johns Hopkins Univ., Baltimore, Md. Dept. of Physics.
Report No.: NASA-CR-128834
Dec 72 70p
Journal Announcement: GRAI7312; STAR1110
Order this product from NTIS by: phone at 1-800-553-NTIS (U.S.
customers); (703)605-6000 (other countries); fax at (703)321-8547; and
email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road,
Springfield, VA, 22161, USA.
NTIS Prices: PC E03/MF A01

Descriptors: *Apollo 17 flight; *Space navigation ; *Stellar radiation
; *Ultraviolet radiation ; Celestial navigation ; Celestial reference
systems; Spacecraft guidance

2/3,KWIC/4 (Item 4 from file: 6)
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0172943 NTIS Accession Number: AD-683 143/XAB

Applications of Infrared Techniques in Modern Aviation

Shen Kung-hsun

Foreign Technology Div Wright-Patterson AFB Ohio

Corp. Source Codes: 141600

Report No.: FTD-HT-23-473-68

11 Sep 68 12p

Document Type: Translation

Journal Announcement: USGRDR6909

Edited trans. of Hang K'ung Chih Shih (Mainland China), n7 p10-12 1960.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A02/MF A01

...Descriptors: Homing devices; Infrared equipment; Identification systems; Infrared detectors; Infrared image tubes; Infrared tracking; Heat homing; Celestial guidance; Infrared radiation ; Infrared telescopes; China

2/3,KWIC/5 (Item 1 from file: 8)

DIALOG(R)File 8:Ei Compendex(R)

(c) 2006 Elsevier Eng. Info. Inc. All rts: reserv.

03477903 E.I. Monthly No: EI7509062428 E.I. Yearly No: EI75071799

Title: NAVIGATION AND GUIDANCE IN INTERSTELLAR SPACE.

Author: Hoag, David G.; Wrigley, Walter

Corporate Source: Charles Stark Draper Lab Inc, Cambridge, Mass

Source: Acta Astronautica v 2 n 5-6 May-Jun 1975 p 513-533

Publication Year: 1975

CODEN: AASTCF ISSN: 0094-5765

Language: ENGLISH

Title: NAVIGATION AND GUIDANCE IN INTERSTELLAR SPACE.

Abstract: It is shown that realistic interstellar missions will require an autonomous navigation and guidance system which must operate over many years required for the mission, must be...

...with the relativistic effects of very high speed. Such a system using inertial sensing and radiation sensing from celestial bodies will be not unlike the on-board system which performed the same functions for...

...Descriptors: Navigation Aids; SPACE FLIGHT...

...Interplanetary Flight; NAVIGATION

2/3,KWIC/6 (Item 2 from file: 8)
DIALOG(R)File 8: Ei Compendex(R)
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0001546732 E.I. No: 19630034466

Title: Optical trackers in space

Author: Harmon, W.L.; Shroyer, G.J.; Gilkey, K.J.

Source: Instrument Society of America -- Journal v 9 n 11 Nov 1962 (Instrument Society of America (ISA) Pittsburgh, PA United States), p 70-73

Publication Year: 1962

Language: English

Abstract: Discussion of optical trackers as accurate passive systems for spacecraft navigation systems; optical trackers can use natural radiation from various celestial bodies to give attitude and position data to space navigators .

?

| Set | Items | Description |
|-----|-------|--|
| S1 | 7 | NAVIGAT? AND (RADIAT? (6N) CELESTIAL?) |
| S2 | 6 | RD (unique items) |

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File 63:Transport Res(TRIS) 1970-2006/Oct
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File 65:Inside Conferences 1993-2006/Dec 08
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File 81:MIRA - Motor Industry Research 2001-2006/Sep
(c) 2006 MIRA Ltd.

File 94:JICST-EPlus 1985-2006/Aug W3
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File 95:TEME-Technology & Management 1989-2006/Dec W1
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File 266:FEDRIP 2006/Aug

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#1

((inertial* <near/4> referenc*) <and> ((puls* <near/3> radiation*) <or> (celestial* <near/3> radiation*))
<and> time* <in> pdfdate) <and> (pyr >= 1950 <and> pyr <= 2003)

5

Modify Search

((inertial* <near/4> referenc*) <and> ((puls* <near/3> radiation*) <or> (celestial*

Search >



Check to search only within this results set

Display Format:



Citation



Citation & Abstract

view selected items

Select All Deselect All



1. Millisecond pulsars: nature's most stable clocks

Taylor, J.H., Jr.;

[Proceedings of the IEEE](#)
Volume 79, Issue 7, July 1991 Page(s):1054 - 1062
Digital Object Identifier 10.1109/5.84982

Summary: The author describes the role pulsars might play in time and frequency technology. Millisecond pulsars are rapidly rotating neutron stars: some 20 km in diameter, 1.4 times as massive as the Sun, and spinning as fast as several thousand radians per e.....

[AbstractPlus](#) | [Full Text: PDF\(768 KB\)](#) [IEEE Xplore](#)
[Rights and Permissions](#)



2. Back cover

[Quantum Electronics, IEEE Journal of](#)
Volume 15, Issue 12, Dec 1979 Page(s):0 - 0

Summary: Not available.....

[AbstractPlus](#) | [Full Text: PDF\(5904 KB\)](#) [IEEE Xplore](#)
[Rights and Permissions](#)



3. Subject Index [1951-1971]

[Aerospace and Electronic Systems, IEEE Transactions on](#)
Volume 36, Issue 3, Part 2, July 2000 Page(s):45 - 121
Digital Object Identifier 10.1109/TAES.2000.869526

Summary: Not available.....

[AbstractPlus](#) | [Full Text: PDF\(10988 KB\)](#) [IEEE Xplore](#)
[Rights and Permissions](#)



4. A comparison of ocean topography derived from the Shuttle Laser Altimeter-01 and TOPEX/POSEIDON

Behn, M.D.; Zuber, M.T.;
[Geoscience and Remote Sensing, IEEE Transactions on](#)
Volume 38, Issue 3, May 2000 Page(s):1425 - 1438
Digital Object Identifier 10.1109/38.843037

Summary: To assess the utility of laser altimetry for studies in dynamical oceanography, the authors present a comparison of the Shuttle Laser Altimeter (SLA)-01 and the TOPEX/POSEIDON (T/P) radar altimeter on global and regional scales. They compare all -1.1.....

[AbstractPlus](#) | [References](#) | [Full Text: PDF\(2916 KB\)](#) [IEEE Xplore](#)
[Rights and Permissions](#)



5. Applications of highly stable oscillators to scientific measurements

Vessot, R.F.C.;

Proceedings of the IEEE

Volume 79, Issue 7, July 1991 Page(s):1040 - 1053

Digital Object Identifier 10.1109/5.84981

Summary: The author describes several scientific experiments requiring highly stable oscillators. It is clear from this analysis that technology has advanced to the point where concepts of relativity theory can be tested in a number of ways. He shows σ_{ve}

[AbstractPlus](#) | [Full Text: PDF\(948 KB\)](#) | [IEEE XpL](#)

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10/728,869 filed 12/08/2003

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One or more terms were invalid in 25 files.

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>>>File 14 processing for PD= : PD=031208

>>>File 14: started at PD=APR.0000 stopped at PD=19830300

1 14: Mechanical and Transport Engineer

Abstract_1966-2006/Nov

1 file has one or more items; file list includes 38 files.

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B 14

File 14: Mechanical and Transport Engineer Abstract 1966-2006/Nov
(c) 2006 CSA.

S NAVIGAT? AND PD<=031208 AND (RADIAT? (6W) CELESTIAL?)

>>>File 14 processing for PD= : PD=031208

>>> started at PD=APR.0000 stopped at PD=19830300

15677 NAVIGAT?

46558 PD<=031208

24231 RADIAT?

1347 CELESTIAL?

20 RADIAT?(6W)CELESTIAL?

S1 1 NAVIGAT? AND PD<=031208 AND (RADIAT? (6W) CELESTIAL?)

?

T S1/3,KWIC/1

1/3,KWIC/1

DIALOG(R)File 14: Mechanical and Transport Engineer Abstract
(c) 2006 CSA. All rts. reserv.

0000130609 IP ACCESSION NO: 200212-12-010480

The celestial view from a relativistic starship

STIMETS, R W; SHELDON, E

Lowell, University, Lowell, Mass. [STIMETS, SHELDON]

British Interplanetary Society, Journal (Interstellar Studies), v 34, p
83-99, Mar. 1981

PUBLICATION DATE: 1981

CONFERENCE:

, United Kingdom

DOCUMENT TYPE: Journal Article

RECORD TYPE: Abstract

LANGUAGE: English

FILE SEGMENT: Mechanical & Transportation Engineering Abstracts

, Mar. 1981

ABSTRACT:

... considerations for manned interstellar flight are discussed and
evaluated, with particular attention to durational and navigational
aspects. The visual appearance of the forward cone, of semiangle 60 deg, in

the astronauts...

DESCRIPTORS: Radiation; Doppler effect; Brightness; Singularities;
Contraction; Wavelengths; Aberration; Mathematical analysis; Space
vehicles; Background radiation ; Displacement; Microwaves; * Celestial
mechanics; *Interstellar spacecraft; *Interstellar travel; *Manned space
flight; *Relativistic effects; Black body radiation; Hertzsprung-russell

...
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File 411:DIALINDEX(R)

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Your SELECT statement is:

S NAVIGAT? AND (RADIAT? (6W) CELESTIAL?)

Items File

| | |
|---|---|
| 1 | 2: INSPEC_1898-2006/Nov W4 |
| 4 | 6: NTIS_1964-2006/Nov W4 |
| 2 | 8: Ei Compendex(R)_1970-2006/Nov W4 |
| 2 | 14: Mechanical and Transport Engineer Abstract_1966-2006/Nov |
| 1 | 35: Dissertation Abs Online_1861-2006/Nov |
| 1 | 57: Electronics & Communications Abstracts_1966-2006/Nov |
| 1 | 68: Solid State & Superconductivity Abstracts_1966-2006/Nov |
| 1 | 144: Pascal_1973-2006/Nov W2 |

8 files have one or more items; file list includes 38 files.

?

B 2,6,8,14,35,57,68,144

09dec06 10:51:07 User264717 Session D541.4

\$2.55 0.963 DialUnits File411

\$2.55 Estimated cost File411

\$0.53 INTERNET

\$3.08 Estimated cost this search

\$64.64 Estimated total session cost 21.184 DialUnits

SYSTEM:OS - DIALOG OneSearch

File 2:INSPEC 1898-2006/Nov W4

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File 6:NTIS 1964-2006/Nov W4

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File 8:Ei Compendex(R) 1970-2006/Nov W4

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File 14:Mechanical and Transport Engineer Abstract 1966-2006/Nov

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File 35:Dissertation Abs Online 1861-2006/Nov

(c) 2006 ProQuest Info&Learning

File 57:Electronics & Communications Abstracts 1966-2006/Nov

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File 68:Solid State & Superconductivity Abstracts 1966-2006/Nov

(c) 2006 CSA.

File 144:Pascal 1973-2006/Nov W2

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S NAVIGAT? AND (RADIAT? (6W) CELESTIAL?)

149335 NAVIGAT?

1610738 RADIAT?

27658 CELESTIAL?

170 RADIAT?(6W)CELESTIAL?

S1 13 NAVIGAT? AND (RADIAT? (6W) CELESTIAL?)

?

RD

S2 9 RD (unique items)

?

T S2/3,KWIC/9

2/3,KWIC/9 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

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17204032 PASCAL No.: 05-0275169

Attitude control system of the Wilkinson Microwave Anisotropy Probe

MARKLEY F Landis; ANDREWS Stephen F; O'DONNELL James R JR; WARD David K
NASA Goddard Space Flight Center, Greenbelt, Maryland 20771, United
States

Journal: Journal of guidance, control, and dynamics, 2005, 28 (3)
385-397

Language: English

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The Wilkinson Microwave Anisotropy Probe mission produces a map of the
cosmic microwave background radiation over the entire celestial sphere
by executing a fast spin and a slow precession of its spin axis about...

English Descriptors: Attitude control; Control synthesis; Solid dynamic;
Cosmic ray; Spacecraft; Inertial navigation ; Measurement sensor; Wheel;
Assembly; Orbit; Angular momentum; Anomaly; Reaction force

French Descriptors: Commande attitude; Synthese commande; Dynamique solide;
Rayonnement cosmique; Spationef; Navigation inertie; Capteur mesure;
Roue; Montage; Orbite; Moment cinetique; Anomalie; Force reaction

?

T S2/3,KWIC/1-9

2/3,KWIC/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2006 Institution of Electrical Engineers. All rts. reserv.

01851172 INSPEC Abstract Number: A76007082

Title: Navigation and guidance in interstellar space

Author(s): Hoag, D.G.; Wrigley, W.

Author Affiliation: Charles Stark Draper Lab. Inc., Cambridge, MA, USA

Journal: Acta Astronautica vol.2, no.5-6 p.513-33

Publication Date: May-June 1975 Country of Publication: UK

CODEN: AASTCF ISSN: 0094-5765

Language: English

Subfile: A

Title: Navigation and guidance in interstellar space

...Abstract: by abundant propulsion, velocity approaching the speed of light, and very long mission times. The navigation and guidance of such a starship will involve an autonomous system sensing received radiation from celestial bodies and utilizing inertial measurements of the motions of the starship. The sensing phenomena which...

... that the present state of the art in theory and implementation of the space-vehicle navigation and guidance is far closer to supporting an interstellar mission than that of many of...

Descriptors: navigation ;

...Identifiers: autonomous system sensing received radiation from celestial bodies...

... navigation ;

2/3,KWIC/2 (Item 1 from file: 6)

DIALOG(R)File 6:NTIS

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0523586 NTIS Accession Number: AD-A016 397/2/XAB

AFCRL Infrared Sky Survey. Volume I. Catalog of Observations at 4, 11, and 20 Microns

(Environmental research papers)

Walker, R. G. ; Price, S. D.

Air Force Cambridge Research Labs Hanscom AFB Mass

Corp. Source Codes: 011800

Report No.: AFCRL-TR-75-0373; AFCRL-ERP-522

14 Jul 75 156p

Journal Announcement: GRAI7526

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NTIS Prices: PC A08/MF A01

Descriptors: *Intermediate infrared radiation ; Infrared scanning; Celestial navigation ; Stellar map matching; Emission spectra; Brightness; Spatial distribution; Coordinates; Position(Location); Stars; Sky; Surveys; Tables...

2/3,KWIC/3 (Item 2 from file: 6)

DIALOG(R)File 6:NTIS

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0403630 NTIS Accession Number: N73-28490/3/XAB

Device for Determining Relative Angular Position Between a Spacecraft and a Radiation Emitting Celestial Body

(Patent)

Farthing, W. H. ; Frisbie, H. F.

National Aeronautics and Space Administration. Goddard Space Flight Center, Greenbelt, Md.

Report No.: NASA-CASE-GSC-11444-1; PATENT-3 744 913

Filed patented 10 Jul 73 9p

Document Type: Patent

Journal Announcement: GRAI7322; STAR1119

Misc-Filed 24 Feb. 1972 Supersedes N72-21418 (10 - 12, p 1608).

Government-owned invention available for licensing. Copy of patent available from Commissioner of Patents, Washington, D.C. 20231 \$.50.

NTIS Prices: Not available NTIS

Device for Determining Relative Angular Position Between a Spacecraft and a Radiation Emitting Celestial Body

... the relative angular position between a spin stabilized spacecraft, probe, or sounding rocket and a radiation emitting celestial body are derived with a detector including four electrodes for deriving indications of the centroid...

2/3,KWIC/4 (Item 3 from file: 6)

DIALOG(R)File 6:NTIS

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0380833 NTIS Accession Number: N73-19866/XAB

Ultraviolet Brightness of Celestial Targets for APOLLO 17

Fastie, W. G.

Johns Hopkins Univ., Baltimore, Md. Dept. of Physics.

Report No.: NASA-CR-128834

Dec 72 70p

Journal Announcement: GRAI7312; STAR1110

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NTIS Prices: PC E03/MF A01

Descriptors: *Apollo 17 flight; *Space navigation; *Stellar radiation; *Ultraviolet radiation; Celestial navigation; Celestial reference systems; Spacecraft guidance

2/3,KWIC/5 (Item 1 from file: 8)
DIALOG(R)File 8: Ei Compendex(R)
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0001546732 E.I. No: 19630034466

Title: Optical trackers in space
Author: Harmon, W.L.; Shroyer, G.J.; Gilkey, K.J.
Source: Instrument Society of America -- Journal v 9 n 11 Nov 1962 (Instrument Society of America (ISA) Pittsburgh, PA United States), p 70-73
Publication Year: 1962
Language: English

Abstract: Discussion of optical trackers as accurate passive systems for spacecraft navigation systems; optical trackers can use natural radiation from various celestial bodies to give attitude and position data to space navigators .

2/3,KWIC/6 (Item 1 from file: 14)
DIALOG(R)File 14: Mechanical and Transport Engineer Abstract
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0000130609 IP ACCESSION NO: 200212-12-010480

The celestial view from a relativistic starship

STIMETS, R W; SHELDON, E
Lowell, University, Lowell, Mass. [STIMETS, SHELDON]

British Interplanetary Society, Journal (Interstellar Studies), v 34, p 83-99, Mar. 1981
PUBLICATION DATE: 1981

CONFERENCE:
, United Kingdom

DOCUMENT TYPE: Journal Article
RECORD TYPE: Abstract
LANGUAGE: English
FILE SEGMENT: Mechanical & Transportation Engineering Abstracts

ABSTRACT:
... considerations for manned interstellar flight are discussed and evaluated, with particular attention to durational and navigational aspects. The visual appearance of the forward cone, of semiangle 60 deg, in the astronauts...

DESCRIPTORS: Radiation; Doppler effect; Brightness; Singularities; Contraction; Wavelengths; Aberration; Mathematical analysis; Space vehicles; Background radiation ; Displacement; Microwaves; * Celestial mechanics; *Interstellar spacecraft; *Interstellar travel; *Manned space flight; *Relativistic effects; Black body radiation; Hertzsprung-russell ...

2/3,KWIC/7 (Item 1 from file: 35)

DIALOG(R)File 35:Dissertation Abs Online

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02103188 ORDER NO: AADAA-I3183563

The use of variable celestial X-ray sources for spacecraft navigation

Author: Sheikh, Suneel Ismail

Degree: Ph.D.

Year: 2005

Corporate Source/Institution: University of Maryland, College Park (0117)

Source: VOLUME 66/07-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 3817. 630 PAGES

ISBN: 0-542-24965-0

The use of variable celestial X-ray sources for spacecraft navigation

Accurate control and guidance of spacecraft require continuous high performance three-dimensional navigation solutions. Celestial sources that produce fixed radiation have demonstrated benefits for determining location near Earth and vehicle attitude. Many interplanetary navigation solutions have also relied on Earth-based radio telescope observations and substantial ground processing.

This dissertation investigates the use of variable celestial sources to compute an accurate navigation solution for autonomous spacecraft operation and presents new methodologies for determining time, attitude, position, and...

...ray emitting variable sources has been compiled to identify those that exhibit characteristics conducive to navigation. Many of these sources emit periodic signals that are stable and predictable, and all are...

...from Earth-orbiting X-ray astrophysics missions are also presented.

Results indicate that the pulsed radiation from variable celestial X-ray sources presents a significant opportunity for developing a new class of navigation system for autonomous spacecraft operation.

2/3,KWIC/8 (Item 1 from file: 57)

DIALOG(R)File 57:Electronics & Communications Abstracts
(c) 2006 CSA. All rts. reserv.

0000271820 IP ACCESSION NO: 200312-32-1352

UMBRAS - A matched occulter and telescope for imaging extrasolar planets

Schultz, Alfred B; Jordan, Ian J; Kochte, Mark; Fraquelli, Dorothy A;
Bruhweiler, Fred; Hollis, Jan M; Carpenter, Kenneth G; Lyon, Richard G;
DiSanti, Mike A; Miskey, Cherie L
Computer Sciences Corp.

SPIE Proceedings Series, v SPIE-4860, p 54-61
PUBLICATION DATE: 2003

PUBLISHER: Society of Photo-Optical Instrumentation Engineers, 1000 20th
Street, P.O. Box 10, Bellingham, WA, 98225
COUNTRY OF PUBLICATION: USA
PUBLISHER URL: <http://www.spie.org>
PUBLISHER EMAIL: spie@spie.org

CONFERENCE:

High-Contrast Imaging for Exo-Planet Detection, Waikoloa, HI, 23-26 Aug.
2002

DOCUMENT TYPE: Conference Paper; Journal Article

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ISSN: 1017-2653

REPORT NO: SPIE-4860

FILE SEGMENT: Electronics & Communications Abstracts

ABSTRACT:

... would be semi-autonomous, with its own propulsion systems, internal
power (solar cells), communications, and navigation capability.
Spacecraft rendezvous and formation flying would be achieved with the aid
of telescope imaging, RF or laser ranging, celestial navigation inputs,
and formation control algorithms. (Author)

DESCRIPTORS: Telescopes; Space; Umbras; Planets; Detection; Spacecraft;
Stars; Light (visible radiation); Space missions; Extrasolar planets;
Systems; Celestial navigation ; Images; Polishing; Stellar systems;
Navigation ; Solar system; Sky; Communication; Power transmission

2/3,KWIC/9 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

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17204032 PASCAL No.: 05-0275169

Attitude control system of the Wilkinson Microwave Anisotropy Probe

MARKLEY F Landis; ANDREWS Stephen F; O'DONNELL James R JR; WARD David K
NASA Goddard Space Flight Center, Greenbelt, Maryland 20771, United

States

Journal: Journal of guidance, control, and dynamics, 2005, 28 (3)

385-397

Language: English

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The Wilkinson Microwave Anisotropy Probe mission produces a map of the cosmic microwave background radiation over the entire celestial sphere by executing a fast spin and a slow precession of its spin axis about...

English Descriptors: Attitude control; Control synthesis; Solid dynamic;
Cosmic ray; Spacecraft; Inertial navigation ; Measurement sensor; Wheel;
Assembly; Orbit; Angular momentum; Anomaly; Reaction force

French Descriptors: Commande attitude; Synthese commande; Dynamique solide;
Rayonnement cosmique; Spationef; Navigation inertie; Capteur mesure;
Roue; Montage; Orbite; Moment cinetique; Anomalie; Force reaction

?

S NAVIGAT? AND (RADIAT? (6N) CELESTIAL?)

149335 NAVIGAT?

1610738 RADIAT?

27658 CELESTIAL?

369 RADIAT?(6N)CELESTIAL?

S3 14 NAVIGAT? AND (RADIAT? (6N) CELESTIAL?)

?

RD

S4 10 RD (unique items)

?

T S4/3,KWIC/1-10

4/3,KWIC/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

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01851172 INSPEC Abstract Number: A76007082

Title: Navigation and guidance in interstellar space

Author(s): Hoag, D.G.; Wrigley, W.
Author Affiliation: Charles Stark Draper Lab. Inc., Cambridge, MA, USA
Journal: Acta Astronautica vol.2, no.5-6 p.513-33
Publication Date: May-June 1975 Country of Publication: UK
CODEN: AASTCF ISSN: 0094-5765
Language: English
Subfile: A

Title: Navigation and guidance in interstellar space

...Abstract: by abundant propulsion, velocity approaching the speed of light, and very long mission times. The navigation and guidance of such a starship will involve an autonomous system sensing received radiation from celestial bodies and utilizing inertial measurements of the motions of the starship. The sensing phenomena which...

... that the present state of the art in theory and implementation of the space-vehicle navigation and guidance is far closer to supporting an interstellar mission than that of many of...

Descriptors: navigation ;

...Identifiers: autonomous system sensing received radiation from celestial bodies...

... navigation ;

4/3,KWIC/2 (Item 1 from file: 6)

DIALOG(R)File 6:NTIS

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0523586 NTIS Accession Number: AD-A016 397/2/XAB

AFCRL Infrared Sky Survey. Volume I. Catalog of Observations at 4, 11, and 20 Microns

(Environmental research papers)

Walker, R. G. ; Price, S. D.

Air Force Cambridge Research Labs Hanscom AFB Mass

Corp. Source Codes: 011800

Report No.: AFCRL-TR-75-0373; AFCRL-ERP-522

14 Jul 75 156p

Journal Announcement: GRAI7526

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NTIS Prices: PC A08/MF A01

Descriptors: *Intermediate infrared radiation ; Infrared scanning;

Celestial navigation ; Stellar map matching; Emission spectra;
Brightness; Spatial distribution; Coordinates; Position(Location); Stars;
Sky; Surveys; Tables...

4/3,KWIC/3 (Item 2 from file: 6)

DIALOG(R)File 6:NTIS

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0403630 NTIS Accession Number: N73-28490/3/XAB

Device for Determining Relative Angular Position Between a Spacecraft and a Radiation Emitting Celestial Body

(Patent)

Farthing, W. H. ; Frisbie, H. F.

National Aeronautics and Space Administration. Goddard Space Flight Center, Greenbelt, Md.

Report No.: NASA-CASE-GSC-11444-1; PATENT-3 744 913

Filed patented 10 Jul 73 9p

Document Type: Patent

Journal Announcement: GRAI7322; STAR1119

Misc-Filed 24 Feb. 1972 Supersedes N72-21418 (10 - 12, p 1608).

Government-owned invention available for licensing. Copy of patent available from Commissioner of Patents, Washington, D.C. 20231 \$.50.

NTIS Prices: Not available NTIS

Device for Determining Relative Angular Position Between a Spacecraft and a Radiation Emitting Celestial Body

... the relative angular position between a spin stabilized spacecraft, probe, or sounding rocket and a radiation emitting celestial body are derived with a detector including four electrodes for deriving indications of the centroid...

Descriptors: *Angular correlation; * Celestial bodies; *Spacecraft position indicators; Patents; Radiation detectors; Semiconductor devices; Signal processing; Space orientation; Spin stabilization

4/3,KWIC/4 (Item 3 from file: 6)

DIALOG(R)File 6:NTIS

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0380833 NTIS Accession Number: N73-19866/XAB

Ultraviolet Brightness of Celestial Targets for APOLLO 17

Fastie, W. G.

Johns Hopkins Univ., Baltimore, Md. Dept. of Physics.

Report No.: NASA-CR-128834

Dec 72 70p

Journal Announcement: GRAI7312; STAR1110

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NTIS Prices: PC E03/MF A01

Descriptors: *Apollo 17 flight; *Space navigation ; *Stellar radiation ; *Ultraviolet radiation ; Celestial navigation ; Celestial reference systems; Spacecraft guidance

4/3,KWIC/5 (Item 4 from file: 6)

DIALOG(R)File 6:NTIS

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0172943 NTIS Accession Number: AD-683 143/XAB

Applications of Infrared Techniques in Modern Aviation

Shen Kung-hsun

Foreign Technology Div Wright-Patterson AFB Ohio

Corp. Source Codes: 141600

Report No.: FTD-HT-23-473-68

11 Sep 68 12p

Document Type: Translation

Journal Announcement: USGRDR6909

Edited trans. of Hang K'ung Chih Shih (Mainland China), n7 p10-12 1960.

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A02/MF A01

...Descriptors: Homing devices; Infrared equipment; Identification systems; Infrared detectors; Infrared image tubes; Infrared tracking; Heat homing; Celestial guidance; Infrared radiation ; Infrared telescopes; China

4/3,KWIC/6 (Item 1 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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0001546732 E.I. No: 19630034466

Title: Optical trackers in space

Author: Harmon, W.L.; Shroyer, G.J.; Gilkey, K.J.

Source: Instrument Society of America -- Journal v 9 n 11 Nov 1962 (

Instrument Society of America (ISA) Pittsburgh, PA United States), p 70-73

Publication Year: 1962

Language: English

Abstract: Discussion of optical trackers as accurate passive systems for spacecraft navigation systems; optical trackers can use natural radiation from various celestial bodies to give attitude and position data to space navigators .

4/3,KWIC/7 (Item 1 from file: 14)

DIALOG(R)File 14:Mechanical and Transport Engineer Abstract

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0000130609 IP ACCESSION NO: 200212-12-010480

The celestial view from a relativistic starship

STIMETS, R W; SHELDON, E

Lowell, University, Lowell, Mass. [STIMETS, SHELDON]

British Interplanetary Society, Journal (Interstellar Studies), v 34, p 83-99, Mar. 1981

PUBLICATION DATE: 1981

CONFERENCE:

, United Kingdom

DOCUMENT TYPE: Journal Article

RECORD TYPE: Abstract

LANGUAGE: English

FILE SEGMENT: Mechanical & Transportation Engineering Abstracts

ABSTRACT:

... considerations for manned interstellar flight are discussed and evaluated, with particular attention to durational and navigational aspects. The visual appearance of the forward cone, of semiangle 60 deg, in the astronauts...

DESCRIPTORS: Radiation; Doppler effect; Brightness; Singularities;

Contraction; Wavelengths; Aberration; Mathematical analysis; Space vehicles; Background radiation ; Displacement; Microwaves; * Celestial mechanics; *Interstellar spacecraft; *Interstellar travel; *Manned space flight; *Relativistic effects; Black body radiation; Hertzsprung-russell

...

4/3,KWIC/8 (Item 1 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online
(c) 2006 ProQuest Info&Learning. All rts. reserv.

02103188 ORDER NO: AADAA-I3183563

The use of variable celestial X-ray sources for spacecraft navigation

Author: Sheikh, Suneel Ismail

Degree: Ph.D.

Year: 2005

Corporate Source/Institution: University of Maryland, College Park (0117
)

Source: VOLUME 66/07-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
PAGE 3817. 630 PAGES

ISBN: 0-542-24965-0

The use of variable celestial X-ray sources for spacecraft navigation

Accurate control and guidance of spacecraft require continuous high performance three-dimensional navigation solutions. Celestial sources that produce fixed radiation have demonstrated benefits for determining location near Earth and vehicle attitude. Many interplanetary navigation solutions have also relied on Earth-based radio telescope observations and substantial ground processing.

This dissertation investigates the use of variable celestial sources to compute an accurate navigation solution for autonomous spacecraft operation and presents new methodologies for determining time, attitude, position, and...

...ray emitting variable sources has been compiled to identify those that exhibit characteristics conducive to navigation. Many of these sources emit periodic signals that are stable and predictable, and all are...

...from Earth-orbiting X-ray astrophysics missions are also presented.

Results indicate that the pulsed radiation from variable celestial X-ray sources presents a significant opportunity for developing a new class of navigation system for autonomous spacecraft operation.

4/3,KWIC/9 (Item 1 from file: 57)
DIALOG(R)File 57:Electronics & Communications Abstracts
(c) 2006 CSA. All rts. reserv.

0000271820 IP ACCESSION NO: 200312-32-1352

UMBRAS - A matched occulter and telescope for imaging extrasolar planets

Schultz, Alfred B; Jordan, Ian J; Kochte, Mark; Fraquelli, Dorothy A;

Bruhweiler, Fred; Hollis, Jan M; Carpenter, Kenneth G; Lyon, Richard G;
DiSanti, Mike A; Miskey, Cherie L
Computer Sciences Corp.

SPIE Proceedings Series, v SPIE-4860, p 54-61
PUBLICATION DATE: 2003

PUBLISHER: Society of Photo-Optical Instrumentation Engineers, 1000 20th
Street, P.O. Box 10, Bellingham, WA, 98225
COUNTRY OF PUBLICATION: USA
PUBLISHER URL: <http://www.spie.org>
PUBLISHER EMAIL: spie@spie.org

CONFERENCE:

High-Contrast Imaging for Exo-Planet Detection, Waikoloa, HI, 23-26 Aug.
2002

DOCUMENT TYPE: Conference Paper; Journal Article

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ISSN: 1017-2653

REPORT NO: SPIE-4860

FILE SEGMENT: Electronics & Communications Abstracts

ABSTRACT:

... would be semi-autonomous, with its own propulsion systems, internal
power (solar cells), communications, and navigation capability.
Spacecraft rendezvous and formation flying would be achieved with the aid
of telescope imaging, RF or laser ranging, celestial navigation inputs,
and formation control algorithms. (Author)

DESCRIPTORS: Telescopes; Space; Umbras; Planets; Detection; Spacecraft;
Stars; Light (visible radiation); Space missions; Extrasolar planets;
Systems; Celestial navigation; Images; Polishing; Stellar systems;
Navigation; Solar system; Sky; Communication; Power transmission

4/3,KWIC/10 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

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17204032 PASCAL No.: 05-0275169

Attitude control system of the Wilkinson Microwave Anisotropy Probe

MARKLEY F Landis; ANDREWS Stephen F; O'DONNELL James R JR; WARD David K
NASA Goddard Space Flight Center, Greenbelt, Maryland 20771, United

States

Journal: Journal of guidance, control, and dynamics, 2005, 28 (3)

385-397

Language: English

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The Wilkinson Microwave Anisotropy Probe mission produces a map of the cosmic microwave background radiation over the entire celestial sphere by executing a fast spin and a slow precession of its spin axis about...

English Descriptors: Attitude control; Control synthesis; Solid dynamic;
Cosmic ray; Spacecraft; Inertial navigation ; Measurement sensor; Wheel;
Assembly; Orbit; Angular momentum; Anomaly; Reaction force

French Descriptors: Commande attitude; Synthese commande; Dynamique solide;
Rayonnement cosmique; Spationef; Navigation inertie; Capteur mesure;
Roue; Montage; Orbite; Moment cinetique; Anomalie; Force reaction

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S NAVIGAT? AND PD<=031208 AND (PULS? (3W) CELESTIAL? (5W) RADIAT?)

Your SELECT statement is:

S NAVIGAT? AND PD<=031208 AND (PULS? (3W) CELESTIAL? (5W) RADIAT?)

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Your SELECT statement is:

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Items File

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Your SELECT statement is:

S NAVIGAT? AND PD<=031208 AND (RADIAT? (6W) PULS? (5W) CELESTIAL?)

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1 14: Mechanical and Transport Engineer

Abstract_1966-2006/Nov

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09dec06 10:48:11 User264717 Session D541.2

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\$51.40 Estimated cost File411

\$4.26 INTERNET

\$55.66 Estimated cost this search

\$55.85 Estimated total session cost 19.787 DialUnits

File 14:Mechanical and Transport Engineer Abstract 1966-2006/Nov

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S NAVIGAT? AND PD<=031208 AND (RADIAT? (6W) CELESTIAL?)

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>>> started at PD=APR.0000 stopped at PD=19830300

15677 NAVIGAT?

46558 PD<=031208

24231 RADIAT?

1347 CELESTIAL?

20 RADIAT?(6W)CELESTIAL?

S1 1 NAVIGAT? AND PD<=031208 AND (RADIAT? (6W) CELESTIAL?)

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T S1/3,KWIC/1

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